CLAIMS

1. A traffic control method for mobile data communications in a mobile communication system of a scheme using spread signals including CDMA, where two types of communication channels including a common channel and a plurality of individual channels are provided such that the common channel is set to be used by a plurality of users together and each individual channel is set to be used exclusively by one user, the traffic control method for mobile data communications characterized by

carrying out a communication using the common channel and the individual channel, between a mobile radio terminal and a radio base station; and

carrying out an admission judgement for a shift from the common channel to the individual channel at the radio base station or the mobile radio terminal, when a communication traffic at the mobile radio terminal is shifting from a sparse state to a dense state during the communication.

2. The traffic control method for mobile data communications as described in claim 1, characterized in that the admission judgement for the shift from the common channel to the individual channel is carried out, at the radio base station according to information on an uplink interference amount which is an amount of received interferences and/or a downlink transmission power level which is a power level transmitted from the radio base station, or at the mobile radio terminal by receiving information on the uplink interference amount and/or the downlink transmission power level that is transmitted from the radio base station and according to the received information on the uplink interference amount and/or the downlink transmission power level.

3. The traffic control method in mobile data communications as described in claim 1, characterized in that, when an admission of the shift is not possible as a result of the admission judgement for the shift from the common channel to the individual channel so that the communication is to be kept on the common channel, the radio base station and/or the mobile radio terminal are controlled such that data transmission is not carried out for a prescribed period of time or data transmission is carried out within a prescribed frequency, with regard to the communication.

4. The traffic control method in mobile data communications as described in claim 3, characterized in that, when an admission of the shift is not possible as a result of the admission judgement for the shift from the common channel to the individual channel so that the communication is to be kept on the common channel, and the shift from the common channel to the individual channel is to be attempted again after controlling the radio base station and/or the mobile radio terminal such that data transmission is not carried out for the prescribed period of time or data transmission is carried out within the prescribed frequency with regard to the communication, a timing for restarting an individual channel set up operation is controlled to be different from other mobile radio terminals.

5. The traffic control method in mobile data communications as described in claim 4, characterized in that the timing for restarting the individual channel set up operation is determined according to a random number.

6. A base station device in a mobile communication system

of a scheme using spread signals including CDMA, where two types of communication channels including a common channel and a plurality of individual channels are provided such that the common channel is set to be used by a plurality of users together and each individual channel is set to be used exclusively by one user, the base station device characterized by

a communication unit for carrying out a communication using the common channel and the individual channel, with a mobile radio terminal; and

an admission judgement unit for carrying out an admission judgement for a shift from the common channel to the individual channel, when a communication traffic state at the mobile radio terminal is shifting from a sparse state to a dense state during the communication.

7. The base station device as described in claim 6, characterized in that the admission judgement unit carries out the admission judgement according to information on an uplink interference amount which is an amount of interferences received at the base station device and/or a downlink transmission power level which is a power level transmitted from the base station device.

8. The base station device as described in claim 6, characterized by having a data transmission control unit for controlling the base station device and/or the mobile radio terminal such that data transmission is not carried out for a prescribed period of time or data transmission is carried out within a prescribed frequency, with regard to the communication, when an admission of the shift is not possible as a result of the admission judgement for the shift from the common channel to the individual channel so that the communication is to be kept on the common channel.

9. The base station device as described in claim 8, characterized by having a transmission time control unit for controlling a timing for restarting an individual channel set up operation to be different from other mobile radio terminals, when an admission of the shift is not possible as a result of the admission judgement for the shift from the common channel to the individual channel so that the communication is to be kept on the common channel, and the shift from the common channel to the individual channel is to be attempted again after controlling the base station device and/or the mobile radio terminal such that data transmission is not carried out for the prescribed period of time or data transmission is carried out within the prescribed frequency with regard to the communication.

10. The base station device as described in claim 9, characterized in that the transmission time control unit determines the timing for restarting the individual channel set up operation according to a random number.

11. A mobile station device in a mobile communication system of a scheme using spread signals including CDMA, where two types of communication channels including a common channel and a plurality of individual channels are provided such that the common channel is set to be used by a plurality of users together and each individual channel is set to be used exclusively by one user, the mobile station device characterized by

a communication unit for carrying out a communication using the common channel and the individual channel, with a radio base station; and

an admission judgement unit for carrying out an admission judgement for a shift from the common channel to the individual channel, when a communication traffic state at the mobile station device is shifting from a sparse

state to a dense state during the communication.

12. The mobile station device as described in claim 11, characterized in that the admission judgement unit carries out the admission judgement by receiving information on an uplink interference amount which is an amount of interferences received at the radio base station and/or a downlink transmission power level which is a power level transmitted from the radio base station and according to the received information on the uplink interference amount and/or the downlink transmission power level.

13. The mobile station device as described in claim 11, characterized by having a data transmission control unit for controlling the mobile station device and/or the radio base station such that data transmission is not carried out for a prescribed period of time or data transmission is carried out within a prescribed frequency, with regard to the communication, when an admission of the shift is not possible as a result of the admission judgement for the shift from the common channel to the individual channel so that the communication is to be kept on the common channel.

14. The mobile station device as described in claim 13, characterized by having a transmission time control unit for controlling a timing for restarting an individual channel set up operation to be different from other mobile radio terminals, when an admission of the shift is not possible as a result of the admission judgement for the shift from the common channel to the individual channel so that the communication is to be kept on the common channel, and the shift from the common channel to the individual channel is to be attempted again after controlling the mobile station device and/or the radio base station such that data transmission is not carried out for the

prescribed period of time or data transmission is carried out within the prescribed frequency with regard to the communication.

15. The mobile station device as described in claim 14, characterized in that the transmission time control unit determines the timing for restarting the individual channel set up operation according to a random number.